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Remote Sensing Institute
South Dakota State University
Brookings, South Dakota 57006

Title:

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National Aeronautics and
Space Administration

Report type:

Monthly Progress Report,
July 1974

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Principal Investigator

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NASA Technical Monitor:

Clayton Forbes
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Code TF6
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Houston, Texas 77058

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3.0 Report of work as identified in Ex. A (SOW) --- Contract NAS 9-13337

3.1 Progress Reports

a. Overall status ---

The ground data along with the C-130 multispectral scanner data was key punched preparing for the analysis to assess the percentage green vegetation with the aircraft data. The single feature boundary detector is based on gradient vector concepts. Previously, only the magnitude of the gradient vector was used when locating boundaries. A provision has been added to the algorithm to use the direction of the gradient vector also for locating boundaries. This improvement appears to make the boundary detector less sensitive to noise. The threshold on gradient magnitudes that are acceptable for boundaries can be lowered without increasing the amount of boundary missclassification. The contrast between two separate classes, therefore, does not have to be as large for the boundary to be located. Two RSI personnel attended the PI conference at JSC during this last reporting period. A budget for a project extension is being prepared and will be submitted prior to August 30, 1974.

b. Recommendations ---

None at this time.

c. Expected accomplishments ---

The report of boundary detection results will be submitted. The analysis of using C-130 data for predicting the percentage of green vegetation cover will be completed.

d. A readilyresults

A report of advanced significant results entitled "Boundary Detection Procedure Developed for Application of SKYLAB S-192 Data to Evapotranspiration Assessments" is in final typing.

e. Summary outlook ---

The ground-based ET assessments were conducted for seven different physical settings. The analysis will include a multistage approach for assessing ET of agricultural land.

f. Travel summary ---

None expected.